REMARKS

This is a full and timely response to the Final Office Action (Paper No. 7) mailed by the U.S. Patent and Trademark Office on May 27, 2003. Upon entry of the attached amendments, claims 1 - 17, 19 - 22, 24, and 25 remain pending in the present application. Claims 1, 2, 5 - 7, 10 - 12, 14 - 16, 19, 20, and 25 have been amended to more particularly point out and distinctly claim the subject matter that Applicant regards as the invention. Claims 18 and 23 have been canceled without prejudice, waiver, or disclaimer. The subject matter of amended claims 1, 2, 5 - 7, 10 - 12, 14 - 16, 19, 20, and 25 is disclosed in at least Figures 3 – 6 of the originally submitted application and is described in the corresponding portion of the detailed description. Consequently, no new matter is added.

Pending claims 1 - 17, 19 - 22, 24, and 25 are allowable over the cited references for at least the reason that the cited references do not suggest data packet routing independent of the state of a routing table in a node along the data route. These claims are further allowable for at least the separate and independent reason that the cited references do not suggest data packet routing by communicating an egress port, a current hop count, and a total hop count in a data packet header.

Applicant requests entry of the amendments because they remove all outstanding issues and place the present application in condition for allowance. In view of the foregoing amendments and the following remarks, reconsideration and allowance of the present application and claims are respectfully requested.

I. Response to 35 U.S.C. §103 Rejections – Claims 1 - 23

A. Statement of the Rejection

Claims 1 - 23 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,721,819 to Galles *et al.*, hereafter *Galles*.

Applicant respectfully traverses the rejection of claims 1 - 23.

For at least the reasons set forth herein, Applicant respectfully requests reconsideration and withdrawal of these rejections.

B. General Discussion of the Rejections

Applicant respectfully traverses the rejection of claims 1 - 23 for at least the reason that *Galles* fails to disclose, teach, or suggest each element and/or method step

in the claims. The Office's rejection alleges that it would have been obvious to a skilled artisan, given the teachings of *Galles*, to disclose a hop count in general. (Office Action, p. 4, lines 8-10.) However, Applicant notes that the claimed invention, as recited in Applicant's amended independent claims 1, 6, 11, and 16, comprises a data packet header that includes an egress port of the subsequent node and a total number of hops in a data route in addition to the current hop count. Not only are these limitations of the data packet header not addressed in the rejection, these non-addressed limitations are not disclosed, taught, or suggested by *Galles*. Because *Galles* fails to disclose a data packet header with these limitations, *Galles* fails to disclose, teach, or suggest routing data packets in a network by responding to the egress port of the next subsequent node and the current hop count as presented in received data packets at each subsequent node in a data route.

Furthermore, these non-addressed limitations of the data packet header of the present invention are not obvious in light of the apparent teachings of *Galles* as *Galles* appears to disclose routers that use data vectors stored in router specific tables to controllably forward data across a network. Accordingly, it is respectfully asserted that the Office Action mailed May 27, 2003 fails to meet the burden of establishing a *prima facie* case of obviousness with respect to Applicant's amended claims.

Moreover, the Office Action mailed May 27, 2003 rejects independent claims 6, 11, and 16 along with independent claim 1 by only generally referring to the apparent disclosure of source logic, routing logic, and destination logic within *Galles*. Applicant respectfully traverses this summary application of *Galles* in rejecting the claims. Claim 1 is a system claim. Claim 6 recites elements in means-plus-function format. Claims 11 and 16 are method claims. The general allegation that it would have been obvious to a skilled artisan, prior to Applicant's invention, given the teachings of *Galles*, "to disclose a hop count in general" fails to allege that each claim element and/or method step and all its limitations as recited in Applicant's claims are disclosed in the reference. Consequently, the rejection of these claims is improper. For at least this separate and independent reason, Applicant respectfully submits that the present Office Action rejection is improper. Accordingly, for at least this reason, Applicant respectfully requests that the Office reconsider and withdraw the rejection.

In addition to the failures of the rejection to establish a *prima facie* case of obviousness and to address each element and/or method step of the claims, Applicant

notes that there are substantial differences between the system apparently disclosed in *Galles* and Applicant's claimed invention. These differences would necessitate significant changes to both the architecture and operation of the network routers apparently disclosed in *Galles* before the network of *Galles* could operate in the manner of Applicant's claimed system and methods.

By way of example, the claimed invention recites source logic in the source node to identify a data route from the source node to the destination node. The data route is communicated to each subsequent node in the data route via a data packet header comprising a next subsequent node's egress port, a current hop count, and a total number of hops in the data route. Each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node. In contrast, *Galles* appears to identify a data route via data vectors stored in a routing table associated with each respective node. The network routers described in *Galles* sequentially modify the position of data vector values in each respective routing table to identify both an ingress and an egress port for directing data transfers.

Furthermore, each node in the network apparently disclosed in *Galles* receives and processes a plurality of data vectors before a determination can be made whether the present node is an intermediate node or the destination node. In contrast, the claimed invention can make an immediate determination whether the received data packet is intended for processing by the present node.

Because each of the above-mentioned differences is substantial and would require significant and non-obvious modifications to the network of *Galles* before *Galles* could operate in accordance with the Applicant's claimed invention, Applicant submits that *Galles* does not render Applicant's claimed invention obvious to a skilled artisan.

The Federal Circuit has repeatedly stated, "[m]odification unwarranted by the disclosure of a reference is improper." *Carl Schenck, A.G, v. Nortron Corp.*, 713 F.2d 782, 218 U.S.P.Q. 698, 702 (Fed. Cir. 1983). In this regard, "[t]he mere fact that the prior art may be modified in the manner suggested by the [Office action] fails to make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780 (Fed Cir.

1992). Here, the cited art reference does not suggest the desirability of using a data packet header to forward an egress port indicator to a subsequent node along a data route.

In the present rejection, the Office Action simply states, with no reasoned analysis, that it would have been either inherent or obvious to a skilled artisan prior to applicant's invention, given the teachings of *Galles*, to disclose a hop count in general. Applicant has reviewed *Galles* and can find no evidence of a suggestion or motivation to modify the network architecture of *Galles* to reach the Applicant's claimed invention. In this regard, the Office Action notes that the motivation provided by *Galles* is to keep track of a packet through a network. Applicant notes that all network communications are driven by the requirement to track a packet through a network. In this regard, *Galles* had additional motivation for creating software programmable router tables. As specifically stated in the Background of the Invention section of *Galles*, the motivation for creating software programmable router tables is to introduce data route flexibility to accommodate faults or network reconfiguration.

In light of this more specific motivation of *Galles*, Applicants disagree with the statement of the rejection because the rejection lacks a reasoned analysis explaining why a skilled artisan would be motivated to disregard the software programmable router tables that use a data vector routing method (*i.e.*, the focus of *Galles*) to adopt Applicant's data packet header based data packet routing methodology. The logic of the rejection is in essence because *Galles* discloses a system and method for routing data in a network that tracks ports and the number of nodes traversed along a preferred data route, Applicant's claimed system which routes data packets in an entirely different way (*i.e.*, by forwarding an egress port, a current hop count, and a total number of hops to routing logic/means in a next subsequent node along the data route) is allegedly obvious over the teachings of *Galles*.

In order for a claim to be properly rejected under 35 U.S.C. §103, "[t]he PTO has the burden under section 103 to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947

F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In this regard, Applicant note that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest both the combination of elements and the structure resulting from the combination. *Stiftung v. Renishaw PLC*, 945 F.2d 1173 (Fed. Cir. 1991).

Here, the cited art references do not suggest the desirability of using a data packet header to forward an egress port indicator to a subsequent node along a data route. Consequently, the cited art references do not suggest the desirability of modifying *Galles* to add routing logic/means to each subsequent node in a data route that is responsive to a data packet header as recited in Applicant's claimed systems and methods. In this regard, the cited references (*i.e.*, the '819 patent and the Hu *et al.* article) do not show the combination of elements and the structure as recited in Applicants' claimed invention. Thus, the cited references fail to meet the burden of disclosing, teaching, or suggesting each feature of Applicants' claimed invention.

Because, a *prima facie* case of obviousness is established only when there is proper motivation to substitute, modify, or add the particular missing element from a reference, Applicant submits that the Office Action has failed to establish a proper *prima facie* case of obviousness. Consequently, for at least this reason the rejection fails to establish a *prima facie* case of obviousness when applied to Applicant's amended independent claims 1, 6, 11, and 16. Accordingly, for at least this reason, the claim rejections under 35 U.S.C. §103 should be withdrawn.

1. Claims 1 - 5

Turning now to the specific claim rejections claims 1 - 5 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Galles*. Applicant respectfully traverses the rejection of claims 1 - 5 for at least the reason that *Galles* fails to disclose, teach, or suggest each element and/or method limitation in the claims.

In order for a claim to be properly rejected under 35 U.S.C. §103, the combined teachings of the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, *e.g.*, *In Re Vaeck, supra.*

For convenience of analysis, independent claim 1 is repeated below in its entirety.

> 1. A data communication system, comprising:
> a number of nodes interconnected in a network, the nodes including a source node, a destination node, and at least one intermediate node, wherein each of the nodes include an ingress port and an egress port;
> ***source logic in the source node to identify a data route*** from the source node to the destination node through the at least one intermediate node, ***the data route being communicated to each subsequent node in the data route via a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route***, wherein ***each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node.***

(Applicant's independent Claim 1 - *Emphasis added.*)

Applicant respectfully asserts that *Galles* fails to disclose, teach, or suggest at least the emphasized element and its limitations as shown above. Consequently, claim 1 is allowable.

In this regard, the Office's rejection of claim 1 alleges that *Galles* discloses source logic. Significantly, the rejection does not allege that *Galles* discloses, teaches, or suggests Applicant's claimed "***source logic in the source node to identify a data route*** from the source node to the destination node through the at least one intermediate node, ***the data route being communicated to each subsequent node in the data route via a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route***, wherein ***each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node.***" Consequently, the rejection is improper and should be withdrawn.

As admitted by the Office, *Galles* fails to show "a current hop count with respect to the source logic used to identify a route from source node to destination node that is attached to a data packet to be transmitted." (Emphasis added.) Applicant notes that claim 1 recites more than a current hop count and in fact *Galles* fails to disclose, teach, or suggests Applicant's claimed "***source logic in the source node to identify a data route . . . the data route being communicated to each***

subsequent node in the data route via a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route, wherein ***each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node.***" Specifically, *Galles* fails to disclose, teach, or suggest communicating the data route to "***each subsequent node in the data route via a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed limitation, *Galles* does not render Applicant's claim 1 obvious. Consequently claim 1 is allowable for at least this reason.

Because *Galles* does not disclose communicating the data route in the claimed manner, *Galles* cannot disclose, teach, or suggest "***each subsequent intermediate node includes routing logic configured to route a data packet associated with the data packet header in response to the egress port.***" Thus, *Galles* does not render Applicant's claim 1 obvious. Accordingly, claim 1 is allowable for at least this separate and independent reason.

Because *Galles* fails to disclose, teach, or suggest communicating the data route "***independent of the state of a routing table associated with the node,***" Galles does not render Applicant's claim 1 obvious. Consequently, claim 1 is allowable over *Galles*.

Because independent claim 1 is allowable, as argued above, dependent claims 2 - 5 are also allowable. *See In re Fine,* 837 F.2d 1071 (Fed. Cir. 1988). Accordingly, Applicant respectfully requests that the rejection of claims 1 - 5 be withdrawn.

2. Claims 6-10

Claims 6 - 10 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Galles*. Applicant respectfully traverses the rejection of claims 6 - 10 for at least the reason that *Galles* fails to disclose, teach, or suggest each element and/or method limitation in the claims.

For convenience of analysis, independent claim 6 is repeated below in its entirety.

> 6. A data communication system, comprising:
> a number of nodes interconnected in a network, the nodes including a source node, a destination node, and at least one intermediate node, wherein each of the nodes include an ingress port and an egress port;
> ***path identification means in the source node for identifying a data route from the source node to the destination node through the at least one intermediate node, the data route being communicated to each subsequent node in the data route via a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route***, wherein ***each subsequent intermediate node includes routing means configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node***; and
> destination means in the destination node for detecting the arrival of a data packet designated for the destination node.

(Applicant's independent Claim 6 - *Emphasis added.*)

Applicant respectfully asserts that *Galles* fails to disclose, teach, or suggest at least the emphasized element and its limitations as shown above. Consequently, claim 6 is allowable.

In this regard, the Office's rejection of claim 6 alleges that *Galles* discloses source logic. Significantly, the rejection does not allege that *Galles* discloses, teaches, or suggests Applicant's claimed "***path identification means in the source node for identifying a data route from the source node to the destination node through the at least one intermediate node, the data route being communicated to each subsequent node in the data route via a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route***,

wherein ***each subsequent intermediate node includes routing means configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed element, *Galles* does not render Applicant's claim 6 obvious. Consequently claim 6 is allowable for at least this reason.

Consequently, the rejection is improper and should be withdrawn.

As admitted by the Office, *Galles* fails to show "a current hop count with respect to the source logic used to identify a route from source node to destination node that is attached to a data packet to be transmitted." (Emphasis added.) Applicant notes that claim 6 recites more than a current hop count and in fact *Galles* fails to disclose, teach, or suggests Applicant's claimed "***path identification means in the source node for identifying a data route from the source node to the destination node through the at least one intermediate node, the data route being communicated to each subsequent node in the data route via a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route***, wherein ***each subsequent intermediate node includes routing means configured to route a data packet associated with the data packet header in response to the egress port independent of the state of a routing table associated with the node.***" Specifically, *Galles* fails to disclose, teach, or suggest "***a data packet header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed limitation, *Galles* does not render Applicant's claim 6 obvious. Consequently claim 6 is allowable for at least this reason.

Because *Galles* does not disclose communicating the data route in the claimed manner, *Galles* cannot disclose, teach, or suggest "***each subsequent intermediate node includes routing means configured to route a data packet associated with the data packet header in response to the egress port.***". Thus, *Galles* does not render Applicant's claim 6 obvious. Accordingly, claim 6 is allowable for at least this separate and independent reason.

Because *Galles* fails to disclose, teach, or suggest communicating the data route "***independent of the state of a routing table associated with the node,***" Galles

does not render Applicant's claim 6 obvious. Consequently, claim 6 is allowable over *Galles* for at least this separate and independent reason.

As a separate and independent basis for the patentability of claim 6, claim 6 sets forth elements using means-plus-function language. Pursuant to 35 U.S.C. §112(6), a claim element recited in means-plus-function format "shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.". 35 U.S.C. §112, ¶6. The Federal Circuit has clearly endorsed this statutory mandate by holding that claims interpreted under 35 U.S.C. §112, paragraph 6, are limited to the corresponding structure disclosed in the specification and it equivalents. *Kahn v. General Motors Corp.* 135 F.3d 1472, 45 U.S.P.Q.2d 1608 (Fed. Cir. 1998).

There should be no question that the elements recited in claim 6 are to be construed pursuant to 35 U.S.C. §112, paragraph 6. In *Greenberg v. Ethicon Endo-Surgical Inc.*, 91 F.3d 1580, 39 U.S.P.Q. 2d 1783 (Fed. Cir. 1996), the Federal Circuit stated that the use of "means for" language generally invokes 112(6). Indeed, only if means-plus-function claim elements recite sufficient structure to carry out the function are they taken out of the gambit of 35 U.S.C. §112, paragraph 6. *Cole v. Kimberly-Clark Corp.*, 102 F.3d 524, 41 U.S.P.Q.2d 1001 (Fed. Cir. 1996).

Indeed, the Federal Circuit reiterated in *Sage Products, Inc. v. Devon Industries, Inc.*, 126 F.3d 1420, 44 U.S.P.Q.2d 1103 (Fed. Cir. 1998) that "the use of the word 'means,' which is part of the classic template for functional claim elements, gives rise to 'a presumption' that the inventor used the term advisedly to invoke the statutory mandates for means-plus-function clauses." Ultimately, the Court in *Sage* construed the relevant claim elements under 35 U.S.C. §112(6), because 'means' were recited, and the claim elements did not "explicitly recite[s] the structure, material, or acts needed to perform the [recited] functions. *Sage* at p. 1428. The Federal Circuit further acknowledged this presumption in *Al-Site Corp. v. VSI International, Inc.*, 174 F.3d 1308, 50 U.S.P.Q.2d 1161 (Fed. Cir. 1999).

Thus, claim elements expressed in "means" plus function format are construed in accordance with 35 U.S.C. §112, paragraph 6, as set forth above, and as further described in *In re Donaldson* 16 F.3d 1189, 29 U.S.P.Q.2d 1845 (Fed. Cir. 1994)(*en banc*). Therefore, the various "means" elements must be construed in accordance with the structure set forth in the present specification.

In this regard, Applicant notes that, in *In re Donaldson,* The Board of Patent Appeals and Interferences advanced the legal proposition that "limitations appearing in the specification are *not* to be read into the claims of an application." *In re Donaldson* at 1848. This argument, however, was rejected by the Federal Circuit, which held, as a matter of law, that "one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding structure ... described therein, and equivalents thereof. *In re Donaldson* at 1848. Furthermore, the holding in *In re Donaldson* does not conflict with the principle that claims are to be given their broadest reasonable interpretation during prosecution. *In re Donaldson* at 1850.

The means-plus-function elements of claim 6 must be construed differently than the corresponding elements of the other claims. Therefore, the rejection of claim 1, for example, does not necessarily apply to claim 6. The Office Action, however, failed to differentiate the elements of Applicant's separate claims in this way. For at least this reason, Applicant submits that the rejection of claim 6 is improper and should be withdrawn, as the rejection is incomplete and legally deficient.

In addition, the structure disclosed in the present specification that corresponds to the various means elements is distinct from that disclosed, and in fact is not shown at all in *Galles*. For at least this additional reason, Applicant submits that the rejection of claim 6 should be withdrawn, as claim 6 patently defines over *Galles*. Accordingly, Applicant's independent claim 6 is allowable for this separate and independent reason and the rejection of claim 6 should be withdrawn.

Because independent claim 6 is allowable, as argued above, dependent claims 7 - 10 are also allowable. *See In re Fine, supra.* Accordingly, Applicant respectfully requests that the rejection of claims 7 - 10 also be withdrawn.

3. Claims 11 - 15

Claims 11 - 15 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Galles*. Applicant respectfully traverses the rejection of claims 11 - 15 for at least the reason that *Galles* fails to disclose, teach, or suggest each element and/or method limitation in the claims.

For convenience of analysis, independent claim 11 is repeated on the following page in its entirety.

> 11. A method for data communications, comprising the steps of:
>
> generating a data packet to transmit from a source node to a destination node through at least one intermediate node in a network;
>
> ***identifying a data route*** from the source node to the destination node through the at least one intermediate node, ***the data route being communicated to each subsequent node in the data route via a header associated with the data packet, the header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route***;
>
> ***routing the data packet along the data route in response to the egress port independent of the state of a routing table associated with the node***; and
>
> detecting the arrival of the data packet at the destination node.

(Applicant's independent Claim 11 - *Emphasis added.*)

Applicant respectfully asserts that *Galles* fails to disclose, teach, or suggest at least the emphasized method steps and their limitations as shown above. Consequently, claim 11 is allowable.

In this regard, the Office's rejection of claim 11 alleges that *Galles* discloses source logic, routing logic, and destination logic. Significantly, the rejection does not allege that *Galles* discloses, teaches, or suggests Applicant's claimed method step of "***identifying a data route*** from the source node to the destination node through the at least one intermediate node, ***the data route being communicated to each subsequent node in the data route via a header associated with the data packet, the header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route***." Furthermore, the rejection does not allege that *Galles* discloses, teaches, or suggests Applicant's claimed method step of "***routing the data packet along the data route in response to the egress port independent of the state of a routing table associated with the node***." Consequently, the rejection is improper and should be withdrawn.

As admitted by the Office, *Galles* fails to show "a current hop count with respect to the source logic used to identify a route from source node to destination node that is attached to a data packet to be transmitted." (Emphasis added.) Applicant notes that claim 11 recites more than a current hop count and in fact *Galles*

fails to disclose, teach, or suggests Applicant's claimed method step of "***identifying a data route*** from the source node to the destination node through the at least one intermediate node, ***the data route being communicated to each subsequent node in the data route via a header associated with the data packet, the header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route.***" In addition, *Galles* fails to disclose, teach, or suggests Applicant's claimed method step of "***identifying a data route*** from the source node to the destination node through the at least one intermediate node, ***the data route being communicated to each subsequent node in the data route via a header associated with the data packet, the header comprising an egress port of a next subsequent node, a current hop count, and a total number of hops in the data route.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed method step, *Galles* does not render Applicant's claim 11 obvious. Consequently claim 11 is allowable.

In addition, *Galles* fails to disclose, teach, or suggests Applicant's claimed method step of "***routing the data packet along the data route in response to the egress port independent of the state of a routing table associated with the node.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed method step, *Galles* does not render Applicant's claim 11 obvious. Consequently claim 11 is allowable for at least this separate and independent reason.

Because independent claim 11 is allowable, as argued above, dependent claims 12 - 15 are also allowable. *See In re Fine, supra.* Accordingly, Applicant respectfully requests that the rejection of claims 11 - 15 be withdrawn.

4. Claims 16 - 23

Claims 16 - 23 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Galles*. Applicant has canceled claims 18 and 23, thus rendering the rejection of claims 18 and 23 moot. Applicant respectfully traverses the rejection of claims 16, 17, and 19 - 22 for at least the reason that *Galles* fails to disclose, teach, or suggest each element and/or method limitation in the claims.

For convenience of analysis, independent claim 16 is repeated on the following page in its entirety.

16. A method for data communications, comprising:
providing a network having a plurality of nodes, the plurality of nodes comprising at least a source node and a destination node;
using a source node to identify a preferred data route for transferring data from the source node to the destination node;
generating a data packet having a header comprising an egress port indicator, a current hop count, and a total hop count, the data packet responsive to the preferred data route;
routing the data packet along the preferred data route in accordance with the egress port indicator added to the header by the previous node along the data route and the current hop count, wherein routing is accomplished independent of the state of a routing table in a node along the data route; and
decrementing the current hop count.

(Applicant's independent Claim 16 - *Emphasis added.*)

Applicant respectfully asserts that *Galles* fails to disclose, teach, or suggest at least the emphasized method steps and their limitations as shown above. Consequently, claim 16 is allowable.

In this regard, the Office's rejection of claim 16 alleges that *Galles* discloses source logic, routing logic, and destination logic. Significantly, the rejection does not allege that *Galles* discloses, teaches, or suggests Applicant's claimed method step of "***generating a data packet having a header comprising an egress port indicator, a current hop count, and a total hop count, the data packet responsive to the preferred data route.***" Furthermore, the rejection does not allege that *Galles* discloses, teaches, or suggests Applicant's claimed method step of "***routing the data packet along the preferred data route in accordance with the egress port indicator added to the header by the previous node along the data route and the current hop count, wherein routing is accomplished independent of the state of a routing table in a node along the data route.***" Moreover, the rejection does not allege that *Galles* discloses, teaches, or suggests Applicant's claimed method step of "***decrementing the current hop count.***" Consequently, the rejection is improper and should be withdrawn.

As admitted by the Office, *Galles* fails to show "a current hop count with respect to the source logic used to identify a route from source node to destination

node that is attached to a data packet to be transmitted." (Emphasis added.) Applicant notes that claim 16 recites more than a current hop count and in fact *Galles* fails to disclose, teach, or suggests Applicant's claimed method step of "***generating a data packet having a header comprising an egress port indicator, a current hop count, and a total hop count, the data packet responsive to the preferred data route.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed method step, *Galles* does not render Applicant's claim 16 obvious. Consequently claim 16 is allowable.

In addition, *Galles* fails to disclose, teach, or suggests Applicant's claimed method step of "***routing the data packet along the preferred data route in accordance with the egress port indicator added to the header by the previous node along the data route and the current hop count, wherein routing is accomplished independent of the state of a routing table in a node along the data route.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed method step, *Galles* does not render Applicant's claim 16 obvious. Consequently claim 16 is allowable.

Moreover, because *Galles* fails to disclose, teach, or suggests Applicant's claimed method step of "***generating a data packet having a header comprising . . . a current hop count,***" *Galles* cannot disclose, teach, or suggest Applicant's claimed method step of "***decrementing the current hop count.***" For at least the reason that *Galles* fails to disclose, teach, or suggest this claimed method step, *Galles* does not render Applicant's claim 16 obvious. Consequently claim 16 is allowable for at least this separate and independent reason.

Because independent claim 16 is allowable, as argued above, dependent claims 17 and 19 - 25 are also allowable. *See In re Fine, supra.* Accordingly, Applicant respectfully requests that the rejection of claims 16, 17, and 19 - 23 be withdrawn.

II. Response to 35 U.S.C. §103 Rejections – Claims 24 and 25

A. Statement of the Rejection

Claims 24 and 25 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over *Galles* in view of "A Queuing Model for Wormhole Routing with Timeout" to Hu *et al.*, hereafter *Hu.*

Applicant respectfully traverses the rejection of claims 24 and 25.

For at least the reasons set forth herein, Applicant respectfully requests reconsideration and withdrawal of these rejections.

B. Discussion of the Rejection

Applicant respectfully traverses the rejection of claims 24 and 25 for at least the reason that *Galles* fails to disclose, teach, or suggest each element and/or method step in the claims. The Office's rejection alleges that it would have been obvious to a skilled artisan, given the teachings of *Galles*, to use a timeout value in general to avoid deadlock problems in a multiprocessor network. As further support, the rejection alleges that *Hu* discloses using a timeout to avoid deadlock. (Office Action, p. 7, lines 2-3.) However, Applicant notes that the claimed invention, as recited in Applicant's amended independent claim 16, includes method steps, in addition to the limitation of using "a timeout value," that are not addressed in the rejection. Significantly, and as noted above regarding the patentability of independent claim 16 over *Galles*, these non-addressed method steps are not disclosed, taught, or suggested by *Galles*. Furthermore, these non-addressed method steps are not obvious in light of the apparent teachings of *Hu*. Accordingly, it is respectfully asserted that the Office Action mailed May 27, 2003 fails to meet the burden of establishing a *prima facie* case of obviousness with respect to Applicant's dependent claims 24 and 25.

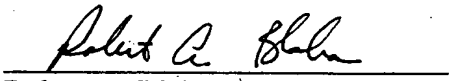
Accordingly, Applicant respectfully requests that the rejection of dependent claims 24 and 25 be withdrawn.

CONCLUSION

Claims 1 - 17, 19 - 22, 24, and 25 remain pending in the present application. For at least the foregoing reasons, Applicant respectfully requests that the outstanding rejection of claims 1 - 17, 19 - 22, 24, and 25 be withdrawn and that the pending claims of this application be allowed to issue. If the Examiner has any comments regarding Applicant's response or believes that a teleconference would expedite prosecution of the application, Applicant requests that the Examiner telephone Applicant's undersigned attorney.

Respectfully submitted,

THOMAS, KAYDEN,
HORSTEMEYER & RISLEY, L.L.P.

By: 

Robert A. Blaha
Registration No. 43,502
(770) 933-9500